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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,904	12/10/2003	Peter Ethan Staples	BLUE-P01	6237
7590	01/10/2005		EXAMINER FITZGERALD, JOHN P	
Jeffrey M. Cox, Esq. Suite 2A 209 S. Fourth Avenue Ann Arbor, MI 48104			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,904

Applicant(s)

STAPLES, PETER ETHAN

Examiner

John P. Fitzgerald

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 6,7 and 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 6, 7, and 11-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 17 December 2004.
2. Applicant's election with traverse of Group 1 (moisture sensor) and Figure 1 in the reply filed on 17 December 2004 is acknowledged. The traversal is on the ground(s) that Figures 1 and 2 are indicative of a single species/embodiment. This is not found persuasive because clearly, the species/embodiment of Figure 1 can function as moisture sensor without the housing combination indicated in Figure 2.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

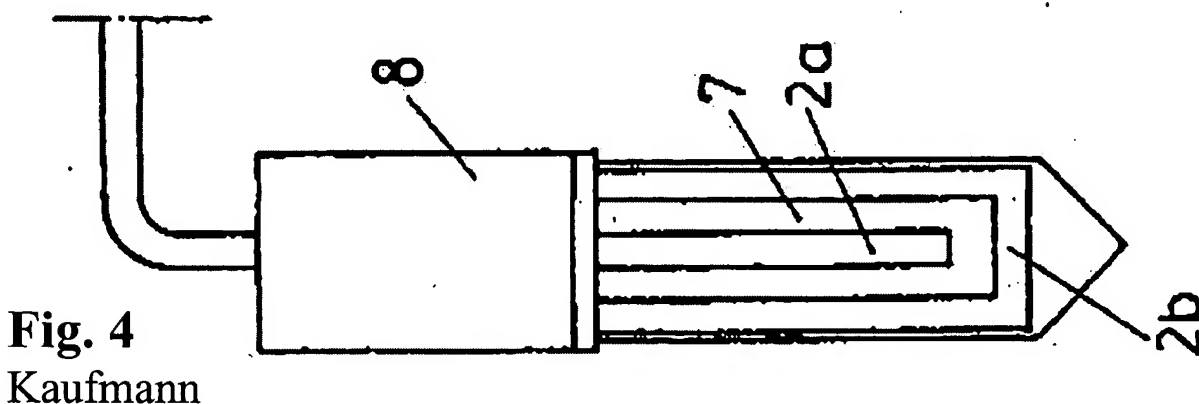
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 8, 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by AT 403,213 B to Kaufmann (note: see attached translation). Kaufmann discloses a moisture sensor

to be inserted in the soil of a plant (Figs. 1-4) having a first circuit board platform (7) with conductive traces (2a, 2b) disposed on first and second surfaces of the circuit board (see Fig. 4 below) (page 7 of provided translation, lines 1-12); a processor (8) disposed on a second platform (note: two linear sections of platform) coupled to the conductive traces and configured to measure an electrical voltage across the conductive traces and to calculate the moisture in the soil; an output device (wire cable) disposed and connected to the second platform of the plant and a base housing (i.e. epoxide) (page 7 of provided translation, line 4) coupled to the second platform and adapted to protect the second platform.



5. Claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as being anticipated by US 4,514,722 to Batcheler et al. Batcheler et al. disclose a moisture sensor to be inserted in the soil of a plant (Figs. 1 and 2) having a first circuit board platform (170) with conductive traces (14) disposed on the first surface of the circuit board (see Fig. 1 below); a processor (1) disposed on the first platform coupled to the conductive traces and configured to measure an electrical voltage across the conductive traces and to calculate the moisture in the soil; an output device

(27, 28) (LED and beeper, respectively) disposed and connected to the first platform of the plant and a base housing (169A,B) coupled to the first platform and adapted to protect the processor/platform.

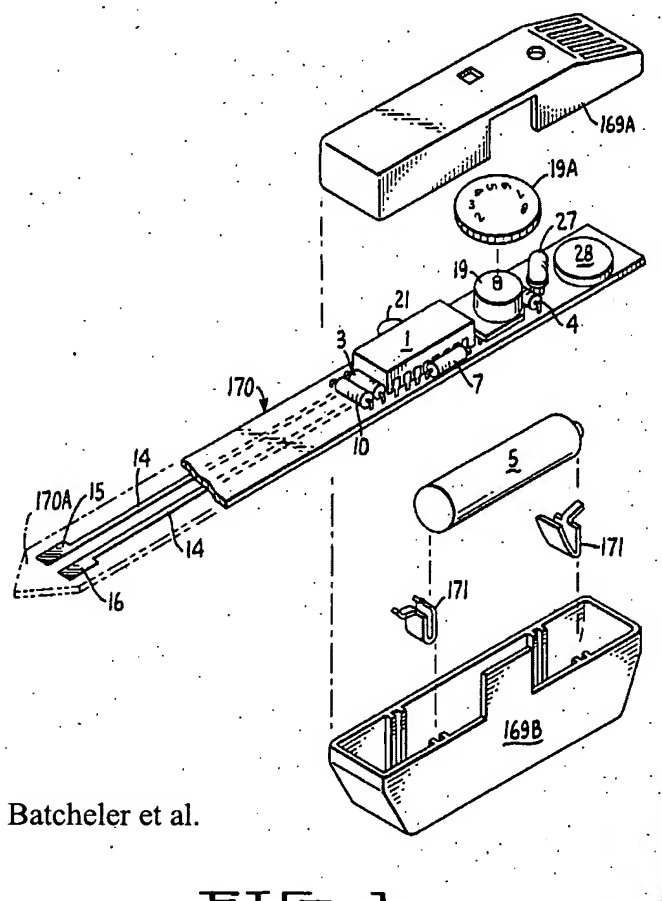
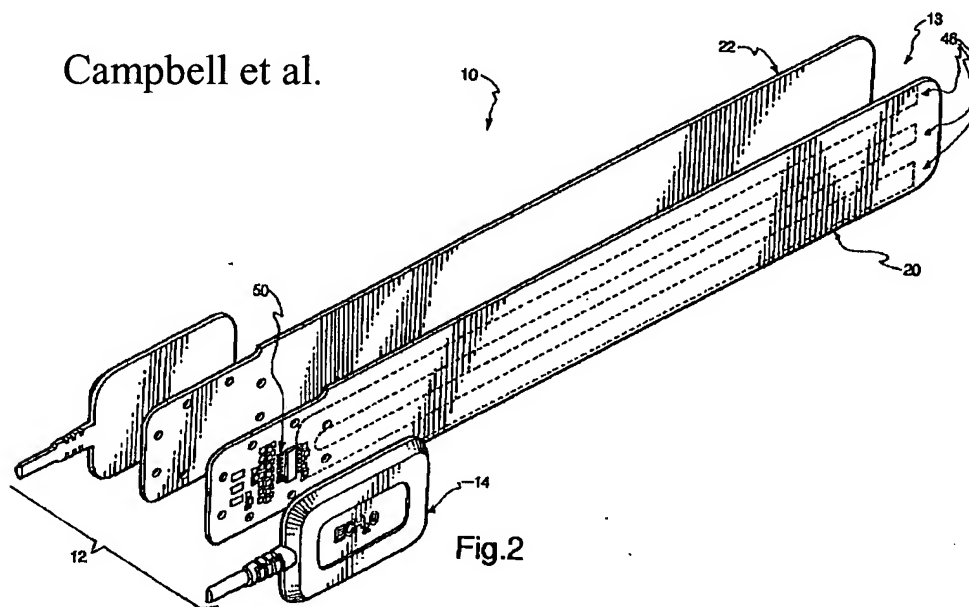


FIG. 1.

6. Claims 1-3, 8, 9 are rejected under 35 U.S.C. § 102(e) as being anticipated by US 20030015024 A1 to Campbell et al. Campbell et al. disclose a moisture sensor (10) to be inserted in the soil of a plant (Figs. 1-5) having a first circuit board platform (20, 22) with conductive traces (etched copper) (46) disposed on first and second surfaces of the circuit board (see Fig. 2 below); a processor (50) disposed on a second platform (note: two linear sections of platform) coupled to the conductive traces and configured to measure an electrical voltage across

the conductive traces and to calculate the moisture in the soil (i.e. bulk materials); an output device (wire cable) disposed and connected to the second platform of the plant and a base housing (14) coupled to the second platform and adapted to protect the second platform.



Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 20030015024 A1 to Campbell et al. as applied to claim 1 above, and further in view of US 2,526,636 to Colman. Campbell et al. disclose a moisture sensor having all the elements recited

previously. Campbell et al. do not expressly disclose a moisture sensor further comprising a porous member coupled to the first platform and arranged to facilitate transfer from the soil to the conductive traces and wherein the first platform defines an anchor to which the porous member is mounted thereto. Colman teaches a moisture sensor (Figs. 1-5) having electrodes (11, 12) that are wrapped in a porous member (glass fabric) (15) which is connected to processor circuitry (see Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a porous member, as taught by Colman, modifying the moisture sensor disclosed by Campbell et al., thus establishing moisture equilibrium conditions in which the electrodes are embedded (Colman: col. 2, lines 5-38). Lastly, in specific regards to the "anchor" recited in claim 5, it is considered well with the design choice of one having ordinary skill to mount the porous member in any fashion, since applicant has not disclosed that defining an anchor on the first platform solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any type of mounting scheme.

9. Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over US 20030015024 A1 to Campbell et al. as applied to claim 9 above, and further in view of US 5,859,536 to Stockton. Campbell et al. disclose a moisture sensor having all the elements recited previously. Campbell et al. do not expressly disclose a moisture sensor wherein the output device is a wireless transmitter. Stockton teaches a moisture sensor (Figs. 1-4) having sensing electrodes (10, 12) inserted into soil of a plant (see Fig. 1) having a circuit board/processor capable of communicating wirelessly via infrared, microwave or radio signals (i.e. having a wireless transmitter) (Stockton: col. 3, lines 35-52). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a wireless transmitter, or

any other type of information data transfer device, as taught by Stockton, modifying the moisture sensor disclosed by Campbell et al., thus allowing information/data regarding the moisture of the soil to be sent and subsequent control of watering devices such as sprinkler heads. (Stockton: col. 3, lines 50-52).

Conclusion

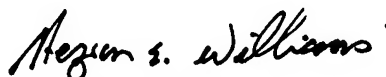
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See accompanying PTO-892 form for references relevant to the instant invention.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fitzgerald whose telephone number is (571) 272-2843. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JF

01/04/2005



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